

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)  
(PCT Article 36 and Rule 70)

REC'D 03 FEB 2006

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Applicant's or agent's file reference P27560PC01	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. PCT/IB2004/052178	International filing date (day/month/year) 22.10.2004	Priority date (day/month/year) 24.10.2003	
International Patent Classification (IPC) or national classification and IPC A47L15/00			
Applicant OZONE WASH (PTY) LIMITED et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <ul style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> <i>(sent to the applicant and to the International Bureau)</i> a total of 3 sheets, as follows: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> </li> <li>b. <input type="checkbox"/> <i>(sent to the International Bureau only)</i> a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</li> </ul>			
<p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the opinion</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>			
Date of submission of the demand 16.08.2005	Date of completion of this report 01.02.2006		
Name and mailing address of the International preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Papadimitriou, S Telephone No. +49 89 2399-2760		



# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/IB2004/052178

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements\* of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

### Description, Pages

1-14 as originally filed

### Claims, Numbers

1-16 received on 18.08.2005 with letter of 18.08.2005

### Drawings, Sheets

1/1 as originally filed

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

- The amendments have resulted in the cancellation of:
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):
- This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
  - the entire international application,
  - claims Nos. 9-12
    - because:
    - the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
    - the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
    - the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
  - no international search report has been established for the said claims Nos. 9-12
  - the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
    - the written form  has not been furnished  
 does not comply with the standard
    - the computer readable form  has not been furnished  
 does not comply with the standard
  - the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
- See separate sheet for further details

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes:	Claims	1-8,15,16
	No:	Claims	13,14
Inventive step (IS)	Yes:	Claims	1-8,15,16
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-8,13-16
	No:	Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

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**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

**1. Claims 9-12**

These claims correspond to originally filed claims 11-14 for which no International search report has been established. Consequently, no examination can be carried out for these non-searched claims (cf. Art. 33(6) PCT and PCT Guidelines §17.34).

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Independent claims 1 and 15**

**Closest prior art:** Document JP-A-04089023 directed to the treatment of ware by rinsing same with warm water having a biocide dissolved therein.

**Objective technical problem:** enhance the cleaning process by ensuring that the maximum amount of biocide is used for treating the ware.

**Solution:** the introduction by appropriate means of the biocide into the washing chamber of the ware washer in a gaseous state and independently of the wash water.

**Technical effect:** readily adjusting of the amount of biocide introduced into the washing chamber as the biocide must not dissolve in the wash water.

**Inventive step:** In JP-A-11137882 ozone is used to treat the dirty waste water, not the wash water intended for ware cleaning.

DE-A-3232057 is similar to the one known from JP-A-04089023 (cf. pg. 7, line 26 - pg. 8, line 8 and fig. 2).

EP-A-0841427 discloses a laundry process in which water is cycled from the washer chamber, through an ozone injector, and back to the washer chamber to react with

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soils and stains in the wash load to thereby enhance the laundry process. The ozone injector is a venturi type device which feeds the ozonated compressed air into water travelling through the throat of the venturi to thereby entrain bubbles of the ozonated air in the water prior to its return to the washer chamber to react with soils and stains in the wash load to thereby enhance the laundry process.

**Industrial applicability:** The claimed process and warewasher are susceptible of use in an industrial environment.

**Conclusion:** Consequently, the subject-matter of independent claims 1,13 and 15 complies with the provisions of Article 33, paragraphs (2)(3)(4) PCT.

2. Dependent claims 2-8,16

These dependent claims define various embodiments of the method specified in independent claim 1 and the apparatus defined in independent claim 15, respectively, and as such also comply with the provisions of Article 33 paragraphs (2)(3)(4) PCT.

3. Independent method claim 13

3.1 Subsisting claim 13 is directed to the use of a biocide in a ware washing process and as such to an activity. The term "in" does not unequivocally limit the use of the biocide to the particular ware washing process defined in the claim. It merely defines the use of the product (biocide) in a particular process, the product not being defined by its material features.

3.2 As such the particular washing process to which the biocide is intended to be used does not unequivocally limit the scope of the claim.

In the terms of claim 13 document DE-A-3232057 is also directed to the use of a biocide in a ware washing process in a dishwasher (cf. fig. 2 and relevant description thereof).

Consequently, the provisions of Art. 33(1) PCT are not complied with because claim 13 does not comply with Art. 33(2) PCT.

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**4. Dependent claim 14**

DE-A-3232057 also discloses the use of ozone as a biocide (cf. pg. 7, line 28) and as such claim 14 is not novel contrary to Art. 33(2) PCT.

**Re Item VII**

**Certain defects in the international application**

**1. Description**

- 1.1 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents JP-A-04089023 and DE-A-3232057 is not mentioned in the description, nor are these documents identified therein.
- 1.2 The description is not in conformity with the claims as required by Rule 5.1(a)(iii) PCT.